

November 11, 2022

## KEY TAKEAWAYS

- There are subtle signs that Virginia may experience growth in the coming weeks. But cases and hospitalizations are still plateaued at a low level.
- Case rates are down slightly from last week (12.4 vs 13.1 per 100,000). Hospital and ICU occupancy figures are nearly identical to last week's rates. Only three localities are report "High" community levels. In these locales, masking is recommended in indoor public places.
- The statewide effective reproduction number ( $R_e$ ) is down slightly and remains below one (0.905). All regions are also below one. Yet, some districts are showing growth. Two are in surge, another 15 in slow growth.
- Variant proportions are evolving as expected. BQ.1 and BQ.1.1 are growing quickly. Together they represent almost 45% of new cases in Virginia. BF.7 is also growing. We see no evidence of significant BA.2.75.2 or XBB growth.
- Models suggest that another winter surge is possible. This could be driven by weather, travel, and the new variants. Models also suggest that bivalent boosters could prevent tens of thousands of cases. If you haven't already gotten your booster, please consider getting one when possible.

927,106

Total Bivalent Booster Doses  
Administered by Nov. 10, 2022

18.6% / 46.4%

Of eligible Virginians / Seniors  
have received a Bivalent  
Booster as of Nov. 10, 2022

24.2% / 49.6%

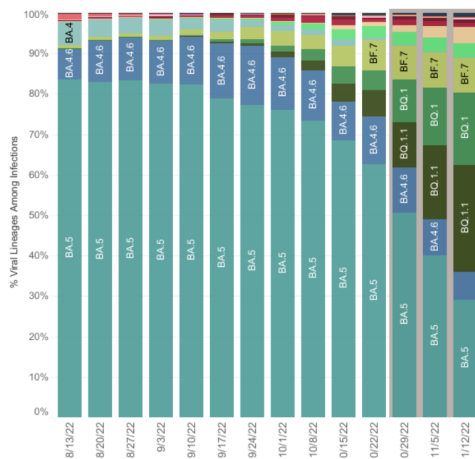
Of eligible Virginians / Seniors  
have received an annual Flu  
shot as of Nov. 10, 2022

3 / 18

Virginia Localities are at  
**High / Medium** Community  
Levels as of Nov. 10, 2022

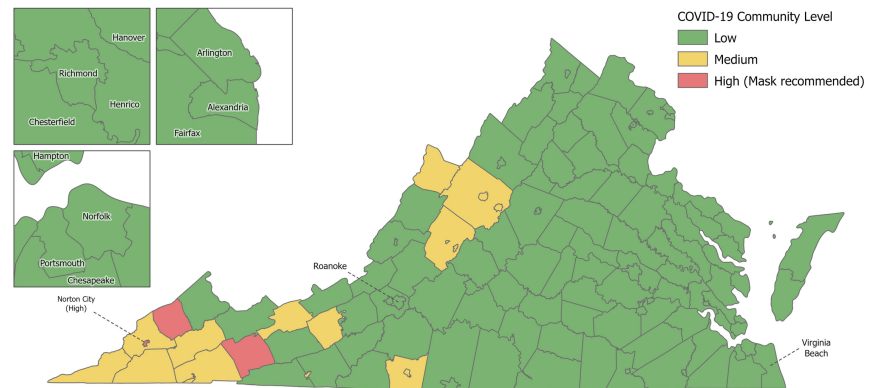
## KEY FIGURES

## Variant Mix – HHS Region 3



## CDC Community Levels

As of November 10, 2022

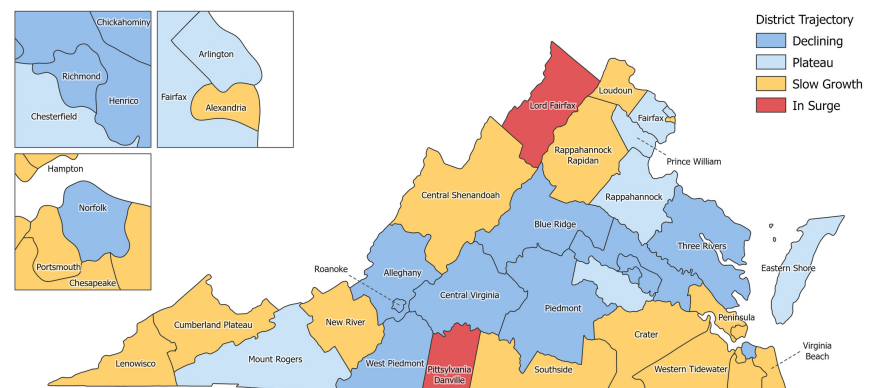


Click Map for Full Size Image

## Growth Trajectories: Two Health Districts in Surge

Status	# Districts (prev week)
Declining	11 (9)
Plateau	7 (8)
Slow Growth	15 (17)
In Surge	2 (1)

Click Table for Dashboard



Click Map for Full Size Image

## THE MODEL

The UVA COVID-19 Model and weekly results are provided by the UVA Biocomplexity Institute, which has over 20 years of experience crafting and analyzing infectious disease models. It is a health district-level **S**usceptible, **E**xposed, **I**nfected, **R**ecovered (SEIR) model designed to evaluate policy options and provide projections of future cases based on the current course of the pandemic. The Institute is also able to model alternative scenarios to estimate the impact of changing health behaviors and state policy.

*COVID-19 is a novel virus,  
and the variant mix  
changes periodically.  
These models improve  
as we learn more.*

## THE SCENARIOS

**Unchanged:** The model uses scenarios to explore the potential paths the pandemic may take under future conditions. Model projections take a variety of factors into account, including current variants, vaccine uptake, vaccination/boosting rates, previous infection, waning immunity, weather, and behavioral responses. **All models now account for bivalent boosters.** Unless otherwise specified, they assume that they will match the 3rd dose booster rollout. The **"Adaptive"** scenario represents the current course of the pandemic, projecting it forward with no major changes. The **"VariantX"** modifier explores the potential impact of a new variant. This hypothetical variant is imagined as having the same immune escape and transmissibility advantages over BA.4/5 that BA.4/5 did over the earlier BA.2. See [page three of the July 15 report](#) for details. The **"FallWinter"** modifier layers seasonal increases associated with colder weather, holiday gatherings, and travel, on top of the base scenarios. It does this by artificially adjusting transmissibility between September and January to match transmissibility from the same time last year. The **"OptBooster"** (optimistic) modifier assumes that bivalent booster coverage will increase *beyond* the current pace and be 25% higher than 3rd dose boosters from Fall of 2021. The new **"NoMoreBooster"** examines the impact of a reduced vaccine rollout, and assumes that boosters stop at current levels.

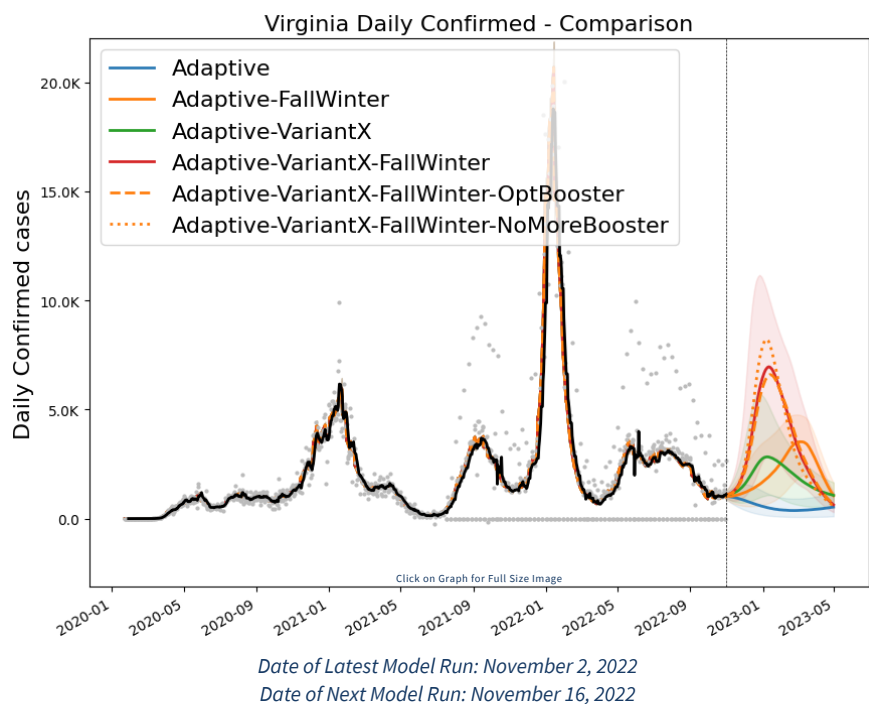
## MODEL RESULTS

**Unchanged:** As always, the current course **"Adaptive"** scenario is shown in blue. This scenario projects a continued decline of cases. In this scenario, Virginia will fall below 500 daily cases by early January.

Both the **"Adaptive-FallWinter"** (orange) and **"Adaptive-VariantX"** (shown in green) scenarios project mild surges. The former peaks at 3,500 daily cases in early March, the latter at 2,800 daily cases in early January.

The **"Adaptive-VariantX-FallWinter"** (red) combines both a hypothetical new variant with the seasonal forcing of Fall / Winter. The combination allows for a significant surge, peaking at about 7,000 daily cases in mid January, before steadily declining.

Both **"OptBooster"** and **"NoMoreBooster"** scenarios (dashed orange lines) are applied to the VariantX-FallWinter scenario. They show that increasing booster uptake could prevent over 10,000 cases. If booster rates slow, this could cause an extra 23,000 cases.



**Please note:** The data and projections shown here reflect reported cases. During the Omicron wave, testing shortages resulted in far fewer infections being reported as cases. This suggests fewer total infections than experienced in January. Please see [page three of the May 13th modeling report](#) for more details.

[\(Explore the model results in detail on this dashboard\)](#)